

### Homework - Simplifying

1. In baseball statistics, a player's slugging ratio is defined to be  $\frac{s + 2d + 3t + 4h}{b}$ , where  $s$  is the number of singles,  $d$  the number of doubles,  $t$  the number of triples and  $h$  the number of home runs obtained in  $b$  times at bat. Dana came to bat 75 times during the season, and hit 12 singles, 4 doubles, 2 triples, and 8 home runs. What is Dana's slugging ratio, rounded to three decimal places?

2. Simplify each of the following:

- (a) the sum of  $6x + 2$  and  $-8x + 5$ ;
- (b) the result of subtracting  $5x - 17$  from  $8x + 12$ ;
- (c) the product of  $7x$  and  $4x - 9$ .

3. Explain why there are two ways to compute each of the following:

- (a)  $3(2 + 3 + 5)$
- (b)  $\frac{1}{3}(9 + 6 - 3)$
- (c)  $(9 + 6 - 3) \div 3$

4. Simplify  $x + 2 + x + 2 + x + 2 + x + 2 + x + 2 + x + 2 + x + 2 + x + 2 + x + 2$ .

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